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STRATEGY RESEARCH PROJECT

ROLE, ORGANIZATION, AND FUNCTIONS OF JOINT MOVEMENT CONTROL IN RECEPTION, STAGING, ONWARD MOVEMENT AND INTEGRATION

BY

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ABSTRACT

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TITLE: Role, Organization, and functions of Joint Movement Control in Reception, Staging, Onward Movement and Integration

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In the post cold war era we have become dependent on strategic deployment to project our forces throughout the world. The movement control during the deployment and

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employment of joint forces is a critical component of the command and control system.

Reception, Staging, Onward Movement and Integration (RSO&I) is critical in the deployment and employment of Joint forces into a theater of operation. If we cannot adequately control the RSO&I process then we will loose momentum and delay providing the combat power to the Joint Force Commander.

Several improvements to the role, functions, and organization of the Joint Movement Center (JMC) are recommended. Joint doctrine must be changed to provide authoritative guidance that establishes movement control as a joint function and not a Service responsibility. It must provide for specific manning for the core of the JMC. The JMC and Service component movement control elements must be a unity of effort organized under a single command authority - the Joint Force Commander. The joint movement control system must also be provided with the appropriate technology to control movements for the Joint Force Commander.

Illustrations

Figure 1	Lessons Learned
Figure 2	JMC Augmentation Specialties
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"There is always a basic dilemma in setting up movement control: it is the sea frontier or the port of embarkation commander who knows what material and units are ready for shipment; but it is the area commander who knows what is needed. A satisfactory resolution of this dilemma can be found only if the 'movement' people are continually aware of changing requirements. It is fundamental that to be effective, a movement control system must be based upon a prescribed combined system of priorities and allocation which, in turn, is administered by an agency responsive to the needs of the commander in the field."

RADM Henry E. Eccles 1959

INTRODUCTION

The dilemma that Rear Admiral Eccles identifies above, has repeated itself in every major conflict this country has been involved in from World War II, Korea, to Viet Nam.

Joint movement control systems were only instituted after the transportation and distribution system became clogged and commanders were not getting what they needed. As soon as the conflict was over these systems were disbanded. During the Cold War we developed a peace time movement control system that only provided for limited centralized movement control in Europe and is today more designed for efficiency than for wartime support. In Korea, we have a wartime combined centralized movement control system with the Koreans but it does not operate in a combined or even joint function on a daily basis. During Somalia US forces established limited movement control activities before turning them over to United Nations forces. Only in recent operations such as Provide Comfort and Restore Hope have we made significant efforts to initiate a joint movement control system early on in the operation.

However, they did not have authority over all movements.

Movement control is defined as the "Planning, routing, scheduling, and control of personnel and cargo movements over lines of communications." Although a critical element from the strategic through the operational to the tactical levels of war, there is little doctrine written about movement control. In the post cold war period where we have become more

dependent on strategic deployment to get our forces where ever we may need them, movement control has become an even more critical component of the command and control system in our deployment and employment of our armed forces.

This paper will address the role, organization, and functions of Joint Movement

Control in the Reception, Staging, Onward Movement, and Integration of Joint Forces.

Combined or coalition operations are not addressed but the same concepts can be adapted and applied to them.

RECEPTION, STAGING, ONWARD MOVEMENT, AND INTEGRATION

Reception, Staging, Onward Movement and Integration (RSO&I) is critical in the deployment and employment of Joint Forces into a theater of operation. The RSO&I principles emphasize unity of command, maximization of unit integrity, and optimization of throughput of units and sustainment material. By maximizing our efforts in Reception, Staging, and Onward Movement, we maximize the throughput of deploying forces.

RSO&I is the critical command and control link between strategic deployment and operational and tactical maneuver. Our investment in RSO&I speeds the assembly of combat power in the theater. By ensuring the right forces are deployed quickly enables the CINC to have greater flexibility in ongoing or future operations. Good RSO&I also minimizes backlogs and congestion at the ports of debarkation.

We are making drastic improvements in the deployment of US forces. Recent improvements to the CONUS base include major CONUS infrastructure improvements like the acquisition of heavy rail cars, port improvements, and installation facility upgrades. We have also made several improvements in mobilization and predeployment preparation. All of

these actions have saved time in our deployment cycle.

We are making significant improvements in strategic lift. By the year 2001, with the acquisition of the new Large Medium Speed Roros (LMSRs), we will improve our sealift posture by 126 percent. Our airlift capabilities are getting healthier as the C-17 comes into service to replace the aging C-141 fleet.³

Deployment of US Forces to the Saudi Arabian peninsula during Desert Shield took approximately 205 days⁴. As the direct result of improvements in our lift capabilities, by the year 2005 an identical deployment could be accomplished in as little as 75 days. The ensuing problem with receiving all of these units, personnel, equipment and material in such a short time frame is the challenge of RSO&I.

We need to improve our RSO&I capabilities to match the strategic lift capabilities we will have. We have several challenges in the theater reception and onward movement of joint forces.

Reception begins at the Sea Port of Debarkation (SPOD). With 90 percent of our equipment being deployed by sea, the sea port operation is the initial critical link upon entering the theater. As recent history has proven again and again from Desert Shield and Somalia to Haiti, we do not have accurate accountability of what is deployed into a theater.

Staging is the marrying of unit personnel and their equipment in the assembly area. It is also where sustainment supplies are segregated and prepared for transport to forward locations. One of the biggest challenges in staging is that the flow of unit equipment and the Time-Phased Force and Deployment Data (TPFDD) may not match, thus causing delays as equipment and personnel are juggled to arrive at nearly the same time to avoid congestion of

the staging areas. Staging areas require vast amounts of real estate and depending upon the theater, this may be in high demand in the host nation, making the marrying of personnel and equipment very crucial. The location of the staging areas are critical as they need to be located near the transportation infrastructure that allows for fluid onward movement to the forward areas.

Onward movement is the allocation of transportation assets, road space, and support requirements that will support the movement of forces from the staging area to the forward areas. We are concerned with the transportation infrastructure that we face in the theater of operations. Few theaters have ample road and rail networks to support the onward movement of major forces. We must also be prepared for enemy interdiction of the transportation networks and the forces using them.

Integration includes the command and control of the reception, staging and onward movement phases as well as the theater force opening module and the tactical unit. Insuring that a seamless flow of units from the port through the staging area to the tactical commander is the major challenge in integration.

I will recommend what kind of joint movement control system, organization, structure, and the mission the joint movement center is required to support the RSO&I process.

RSO&I is a force multiplier. If RSO&I can be maximized and fine tuned, we can deliver combat ready forces to the combatant commander in the minimum time.

LESSONS LEARNED

In a review of lessons learned that have been documented in GAO reports, service schools, professional journals, after action reports, and personal experiences in Operations Provide Comfort (Turkey-Northern Iraq) and Restore Hope (Haiti), there are several documented lessons learned in the movement control portion of RSO&I. The matrix (Figure 1) below provides a cross reference between key lessons learned and operations.

	SHIELD/ STORM	COMFORT	
JMC ORGANIZATION		x	X
AUTOMATION	X	X	X
EARLY FLOW OF MC UNITS	Х	×	X
JOPES INTERFACE	X	X	X
JMC AUGMENTEES		x	X
INTRANSIT VISIBILITY	X	x	X
ROLE OF CMCC & CORPS HQ	X		X
ROLE OF THEATER MC BN		X	

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The most critical recurring problem is the lack of movement control elements in the early Time-Phased Force and Deployment Data (TPFDD). The trade off of warfighters to logisticians is a constant battle. Even on later operations such as Operation Restore Hope in Haiti, movement elements were on the ground with the initial USAF Tanker Airlift Control Element (TALCE) but others did not arrive until three days after the port became operational.

Automation is a monumental problem. Automation of transportation data has been late in being developed. There are many independent data bases and we are still working with prototypes like the Global Transportation Network (GTN) that will be able to access a variety of different data bases. Access to available airlift and port data bases is also compounded due to the shortage of dedicated satellite communications and non-availability of commercial phone lines in austere locales.

Another information problem has been the usage of the Worldwide Military Command and Control System (WWMCCS) and the Joint Operation Planning and Execution System (JOPES). The limited access due to the Top Secret security clearance requirements and the non-user friendliness of the system as a whole do not contribute to the accurate use of JOPES when executing a deployment.

Obtaining timely and accurate vessel and aircraft manifests have been a problem for decades and continues to be a problem that causes extensive juggling and delays in the reception, staging, and onward movement process.

Mission creep was a problem in Provide Comfort and Operation Restore Hope. In Operation Provide Comfort an Army theater level movement control battalion and in Restore Hope, an Army corps movement control center were performing both as the Joint Movement Center and also as the Army movement control center. These units are small and augmentation was limited as they were engaged in missions much larger than their organic capabilities. In both instances, the movement control organizations were charged with mission related to but outside normal doctrinal duties. In Provide Comfort the unit inherited the documentation and management of air cargo. In Restore Hope the unit was tasked with

the redeployment TPFDD building and management.

Command and control is also an issue. In Operation Provide Comfort, there were initial issues with command and control, differing between the C/J4 staff and the Combined Support Command (Army Service Component Commander).

A Joint Movement Center requires a variety of augmentees from all services with varying specialties. Having the right augmentees is a lesson learned from Haiti.

Augmentation arrived late and often the personnel did not have the correct military occupational specialty to conduct their duties effectively.

JOINT MOVEMENT CONTROL SYSTEM

Joint Publication 4-0 clearly states that "Implementation and execution of logistic functions remain the responsibility of the Services and the Service component commanders." The publication also states that the joint movement control system is established to implement the tasking and priorities provided by the Joint Force Commander (JFC). The JFC must have control over intratheater movements. To accomplish this, the JFC must establish an activity that coordinates employment of all modes of transportation to support the concept of operations.

According to Joint Publication 4-01.3, Joint Tactics, Techniques, and Procedures for Movement Control, the JFC can establish either a Joint Transportation Board (JTB) or a Joint Movement Center (JMC), or both.⁸ There are two major differences. The JTB is a part time board which consists of only representatives of the Service components and key J3, J4, and J5 staff elements while the JMC is a jointly staffed agency that has the daily function of

managing the joint movements system. The second difference is that a JTB would handle policies, priorities and apportionments beyond the authority of the JMC. In an austere, undeveloped theater of operations, the Joint Movement Center is the best option as it is a full time operating agency operating for the JFC and can execute all the functions of a JTB and JMC.

ISSUES

The joint movement control system is the critical command and control link in the RSO&I process. There are three major doctrinal issues that can be improved that will have a direct impact movement control and RSO&I.

- 1. Service responsibilities versus joint functions.
- 2. Organizing the JMC.
- 3. Command relationships staff agency or operational unit?

First: Current Joint Doctrine provides general but vague guidance on establishing the theater movement control system. The first issue centers around Service responsibilities and joint functions performed by the CINC/JTF headquarters. Joint Publication 4-0 confuses the traditional thought that 'logistics is a service responsibility' with guidance that "geographic combatant commanders will exercise control over intratheater movement...logistic plans should provide combatant commanders with the highest practicable degree of influence or control over movement." Yet, it also states that "unity of effort is best attained under a single command authority"

Joint Publication 4-01.3 on Movement Control allows the CINC too many options for performing movement control. "He may direct subordinate JFC and Service components to perform their own movement control or establish a JTB or JMC or both." When each Service executes its own movement control then movement control is not under a single command authority. The control of joint movements is not a function that can be delegated to one specific service, it must be truly a joint activity to support joint forces. In a JTF area of operations, operation of all movements must remain under the control of the JMC. History has proven to us that when services retain responsibility for mode management, the resources are often under utilized and may not be available to the JFC when he needs them.

Second: We need to look at how the movement control system is organized and the traditional concepts delineated by doctrine. Currently, when a CINC stands up a Joint Task Force, the Joint Movement Center is organized from existing staff resources and augmentees as necessary. Joint doctrine provides the JFC the basics of how to establish a JMC but not where to get the experienced manpower it takes to execute the critical mission of the JMC. When adhoc organizations are formed, many problems arise including personnel with little or no strategic movements training or experience.

Third: Under current doctrine, the Joint Movement Center is a staff agency of the Director of Logistics, J4. It has no command authority or responsibilities, it relies upon coordination and liaison to accomplish its mission. Other than the staff agency itself, the JMC has no subordinate elements to ensure the JFCs tasks and priorities are executed.

Whereas Joint Bulk Petroleum Doctrine specifically allows the Joint Petroleum Office (equal to JMC) to assume operational control of Service Component elements, and direct tactical movement of fuels by any Service component¹².

The Service component and in most cases, the Army movement control elements coordinate with the JMC but remain under the command and control of the Service Component Commander. This is not contributory to a single responsible agency for movement control operations. It does not provide the JFC with a single point of contact for controlling movements of all joint forces.

An overhaul of JMC functions, responsibilities and how the JMC is organized is essential to being able to provide the critical link required to support RSO&I.

RECOMMENDATIONS

The recommendations presented will provide for a JMC with adequate manpower and a single command authority. The new JMC will provide the JFC with a base of trained movement specialists and an organization that can insure that the RSO&I principles of unity of command, maximization of unit integrity, and maximization of throughput of units and sustainment material are met.

ORGANIZATION

Joint Publication 4-0 authorizes a CINC to establish a joint movement control organization but it does not provide or identify resources to man such an organization. As stated previously, when a CINC stands up a JTF and a JMC, it is usually resourced from the

CINC's staff and augmentees from supporting CINCs. As a supporting CINC, United States Atlantic Command (USACOM) would be a source for these augmentees. The US Army Training and Doctrine Command published a Regulation 500-1 titled: "Warfighting Augmentation of Selected Commanders in Chief of Unified Commands and Army Service Component Commanders", which identifies twelve augmentation teams. One of these teams is the JMC team that is comprised of twenty transportation subject matter experts and leaders. The regulation says the team is capable of forming a movement control center during joint or combined operations. It further identifies the US Army Transportation School as the proponent for this team.¹³ Since the force reductions of the 90's, the Transportation School does not have the capability to man such a team. Without this capability, the CINCs do not have any single source from which to receive JMC augmentation. USACOM does not have a contingency plan for establishing a JMC. They operate a small JMC cell during peacetime within their staff to track ongoing missions but they do not have a deployable JMC. when a JTF is formed, the standard practice is to assemble an adhoc JMC consisting of primarily augmentees with little or no joint movements experience. Then the CINC places his trust in an inexperienced JMC organization to provide coordination of movement all the supporting forces into his theater. This is a recipe for failure. Only through hard work and many trial and error incidents does the adhoc JMC survive and develop into a competent organization capable of fulfilling its mission. There is a better way.

Establishing standing JMC organizations either by individual CINCs or by a supporting CINC such as USACOM would be beneficial to resolving the problems associated with the adhoc JMC. A CINC could identify, educate, and train a JMC organization that

could assemble for training exercises and contingencies would be a great improvement over not having any JMC organization it could rely upon. However, the resources for personnel is still a problem. Our service schools and staffs do not contain the overhead in personnel that they once had and could absorb missions such as the JMC. Organizational units are not the source for individual manpower either. The situation of over tasked and under manned is prevalent in even our highest contingency units. Neither the adhoc nor the standing JMC organizations are acceptable solutions to the problem.

Another alternative is to utilize an existing movement control unit as the core or nucleus of the JMC. Building the joint movement control organization is mission dependent. The command and control headquarters needs to be a jointly manned organization from the start or it will not be able to execute the mission to coordinate all land, air, and sea movements. The JMC Commander may be appointed from available logisticians or be the current commander of an existing movement control unit. The nucleus of a JMC needs to be built around existing force structure. It is best to capitalize on an existing headquarters organization, expertise, training, and equipment than to try and assemble one from single individuals, with no equipment and little or no movements training. The Army and Marine Corps are the only services with the existing force structure units with the capability to be used as a nucleus. The Army Corps Movement Control Center/Battalion is the ideal core for building a Joint Movement Center. The Army Theater Movement Control Agency (TAMCA) or a Theater Transportation Battalion (Movement Control) can also serve this purpose.

The Marine Corps Logistics Movement Control Center (LMCC) is a small organization but could be used in as JMC for a small JTF. The Marine Force Movement Control Center (FMCC) is a Marine Expeditionary Force (MEF) level movement control organization but is an adhoc organization and not established unless deploying or in a deployed theater.

A point of major concern is that in a contingency when an existing Service movement control headquarters is used to form the nucleus of the Joint Movement Center, you have robbed that Service of a very limited resource. In order to conserve resources, this joint organization must still remain responsible executing movement control function for their forces and for providing command and control to its subordinate units. In reality, this has evolved from a unit to a combination of unit and joint staff agency.

Initial movement control operations will be conducted in a split based mode. With some initial elements deploying early to the theater while other units remain in CONUS to manage the deployment. There are not enough movement control units to completely deploy them to the theater early on so a balance must be attained between the CONUS requirements and in theater requirements.

Modularity is the key here in that elements of the movement control system must be on the ground from the start of the deployment as the critical nodes develop.

MANNING

Headquarters augmentation from other services is required to make this organization mission capable. The chart (Figure 2) below identifies these personnel by military occupational specialty titles and skill identifier to make augmentation personnel requisitions more reliable.

SERVICE	OFFICER	MOS	<u>enlisted</u>	MOS
	TRANS			1001110100
RMY	TRANS OFF	88	MOVNCO	88N40/30 88Z50
IR FORCE	OPS OFF	011A3Y	OPS SGT	1C371 1C351
	MTR TRANS	3502	MTR TRANS	35XX
IARINE				
	PORT/ BEACH	0402, 0431, 0469	MAGTF II OPS	04XX
IAVY	TRANS MGT	0035 WITH 'S','R','G','F'		

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Additional augmentation from outside agencies is essential. Augmentation from the supporting CINC, US Transportation Command (USTRANSCOM) is highly recommended. USTRANSCOM can coordinate all actions of their transportation component commands. Representation from the Military Traffic Management Command (MTMC) can coordinate port activities when MTMC is operating the theater ports of debarkation. They can also coordinate activities at the ports of embarkation and will be the source for accurate ship

manifests. Air Mobility Command (AMC) provides air mobility specialists are necessary for airlift management and coordination with the AMC elements in theater and in CONUS. Likewise, augmentation from the US Navy Military Sealift Command (MSC) may be necessary to coordinate and monitor sealift operations.

The Defense Logistic Agency (DLA) can also provide invaluable coordination on the movement of material from CONUS and other DLA storage areas. Liaison with agencies such as Army Air Force Exchange Service (AFFES) may also be desirable. Interagency liaisons may also be required, especially in operations other than war. These may include agencies such as the Department of State, United States Agency for International Development (USAID) and their Office of Foreign Disaster Assistance - Disaster Aid Relief Team (DART) and any number of non-governmental organizations.

Host nation representation is required. Liaison with the host nation military, national police (for security and road space access), national or private railways, harbor and port operations and commercial contractors are just a few.

Subordinate organizations to the JMC must be made available from all services and need to be requested according to the mission. Most of these organizations are small and modular in nature and requirements can be replicated as the mission requires. The key here is that you must have the capability for expansion with the mission. Although there are many organizations that are not subordinate to the JMC, they are mentioned here to insure that they are included in the force list.

Army: In addition to the movement control headquarters elements identified above, the Army has active duty and early mobilizing reserve component Movement Control Teams (MCT) that operate at critical transportation nodes. There are Port MCTs that operate at airfields or seaports and initiate onward movement from the port via land transportation. There are Area MCTs that operate at assembly areas and logistic bases coordinating onward movement of units and sustainment material. There are Highway Regulation MCTs that control movements along designated main lines of communication. There are also Cargo Documentation Teams that maintain visibility over cargo being offloaded from ships or at transload sites. The chart below (Figure 3) is a guide for allocating Army MCTs.

LOCATION	LA TEAM	LB TEAM	LC TEAM	LD TEAM
APOD	1 PER 2 WIDE BODY A/C	1		
SPOD	1 PER 2 SHIPS			1 PER PORT
CSG/LOG BASE		1 PER CSG		
MSR CHECK PT			<u> </u>	1 PER 3 CK PTS
ASSY AREA			<u> </u>	1 PER AA
DIVISION			1 PER DTO	
B (AREA) 1 C (DTO)	7 PERS 24 H 3 PERS 24 H 6 PERS 24 H	IR CAPABILIT	rY Y	

Marine Corps: The Marines do not have movement control organizations below the Field Service Support Group (FSSG) level. At this level they have the Logistic Movement Control Center (LMCC) which is capable of limited movement control operation for a lesser than MEF sized force. The Marines also have the capability to organize a Force Movement Control Center (FMCC) at the Marine Expeditionary Force (MEF) level. Their employment would normally be limited to a Marine dominated operation.

Air Force: Although not subordinate to the JMC, the Director of Mobility Forces (DIRMOBFOR) and the Tanker Airlift Control Element (TALCE) are critical in the movement process. The DIRMOBFOR is responsible for operating the theater air mobility mission. The DIRMOBFOR serves as the Air Force Component Commander's (AFCC) agent for all theater air mobility issues. The DIRMOBFOR controls the intratheater airlift. The Air Mobility Element (AME) may be formed to work for the DIRMOBFOR for monitoring strategic air mobility operations into, out of, and transiting the theater of operations to ensure proper coordination between theater and strategic air mobility assets.¹⁶

The TALCE is a deployed AMC composite organization established to provide continuous on-site management of AMC airfield operations including command and control, communications, aerial port services, maintenance, security, weather, and intelligence.¹⁷ These organizations are the theater airlift and airfield operators and provide a link with the air flow and air field clearance.

Navy: Control of Navy Military Sealift Command (MSC) vessels in the theater will be made by the Military Sealift Command Offices (MSCO) which will coordinate with the JMC.¹⁸ The Navy does not have any movement control organization that can conduct

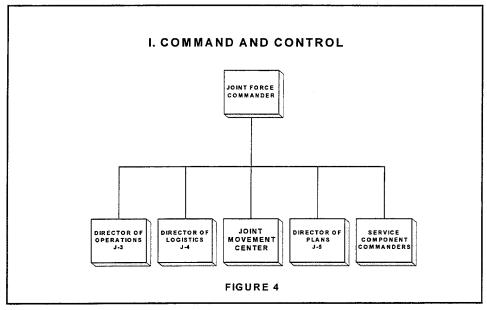
extensive land operations. The Navy coordinates onward movement requirements from port or Logistics Over the Shore (LOTS) operations through their Navy Cargo Handling Battalions and Beach Groups to the JMC.

COMMAND AND CONTROL

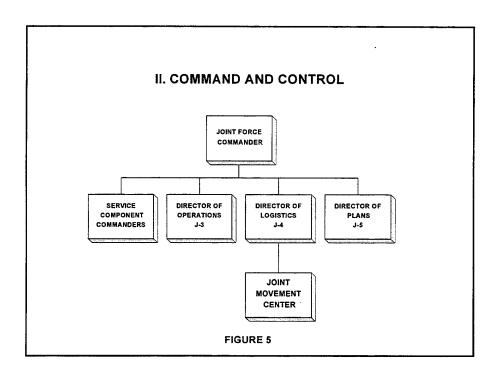
JMC Headquarters

As stated previously, command and control of the movement control organization must be joint. The JMC must be headed by a commander with regular command authority and responsibilities. An agency director can not execute the functions required by a command. There are three workable options.

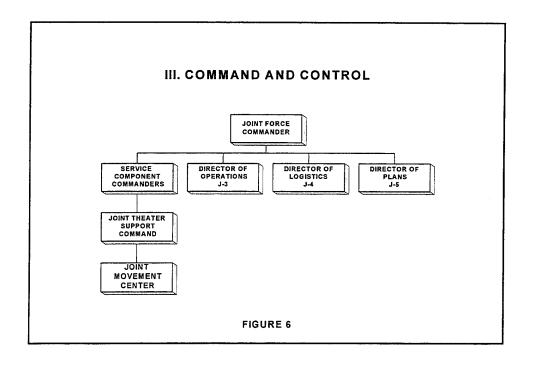
I. Ideally the JMC Commander should work directly for the JFC, with daily coordination accomplished through the Director of Logistics, J4. This arrangement follows existing Army doctrine that establishes the Theater Army Transportation Movement Control Agency (TAMCA) assigned under the Theater Army Commander and under aligned the Director of Logistics, G-4, for technical supervision.¹⁹



II. The second option is that the Joint Movement Center be assigned as an agency directly under the supervision of the Deputy Chief of Staff for Logistics, J4. This is our current joint doctrine.



III. The third and least desired alternative is to have the Joint Movement Center subordinate to the senior joint logistics commander in the theater. This may be the Joint Theater Support Command or the Joint Logistic Support Element (JLSE). This arrangement places the JMC in a chain of command that could be encumbering and filtered by unnecessary layers of command and control. This would not provide the JFC with the response and flexibility required during a deployment.



JMC Commander

The Commander of the JMC needs to be a senior logistician with transportation management experience but is not dependent on any particular service component.

Depending on the size of the theater or Joint Task Force, either Army, Air Force, or Marine would be the most likely candidates to provide the JMC Commander. The grade/rank structure of the JMC is determined by the size of the mission and theater. The JMC Commander should be no less than an Lieutenant Colonel and preferably a General Officer. If the theater grows to five and a third divisions, a general officer is essential. Most JTFs will have no less than a Colonel as the J4 and the JMC Commander should be equal. As discussed earlier, the JMC is a critical element in the command and control of forces entering

a theater. Placing a lower ranking JMC Commander subordinate in rank to the Director of Logistics, J4 or the Air Mobility Command's Director of Mobility Forces (DIRMOBFOR) in the theater reduces the importance of the JMC and its contribution to the RSO&I process. Appointing a Lieutenant Colonel or General Officer as the JMC Commander does not alter the use of an existing transportation movement control unit as the core of the JMC. The JMC Commander could be dual hatted or in addition to the existing unit commander. In the later case, it extends the span of control between the Commander of the JMC and the movement control unit commander, allowing the JMC Commander to focus on the overall operation while the unit commander can focus on routine command and mission responsibilities.

Staff Relationship

The relationship between the JMC with the J4 and J3 is very critical in applying, enforcing, and changing the JFC's priorities. Although the JMC is functioning as a logistic agency for the J4, its relationship with the Director of Operations, J3, is very critical especially during deployment operations. The JFC controls all forces through the J3 and it is the J3 that traditionally administers the JFCs priorities. The Director of Logistics, J4 is not directly involved with the movement of combat forces except through providing them support during the movement. The J3, J4 and JMC link must coordinate the JFC priority changes.

JMC Subordinate Units

Establishment of the JMC as a command enables the existing movement control elements that are assigned to the Service movement control unit to belong directly to the JMC. In the past, these units which in most cases are Army Movement Control Teams have frequently been assigned the mission of providing movement control and traffic management

to joint forces under the dominate user and most competent user concepts. Assigning these units to the JMC enables the JMC to fully exercise control over the joint movements arena. This concept best supports the centralized control and decentralized execution principle of movement control.

RESPONSIBILITIES

In an immature theater whether a conflict or operation other than war, the mission of the movement control organization must cross all three levels of war. While in a developed theater there is a clearer distinction between the strategic, operational, and tactical levels of war. In either scenario, the movement control organization regardless of it's service or organizational size, must be capable of operating across the continuum linking the strategic, operational, and tactical levels of the transportation and movements in the operation.

At the strategic and operational joint staff level, the JMC plans, allocates, apportions, validates, deconflicts priorities, coordinates special movements, and provides in-transit visibility. At the tactical level, movement control organizations are the operators and executors. They commit transportation resources and apply priorities along with planning, coordinating movements, and providing in-transit visibility.

During the deployment of forces, the JMC is the JFCs link to USTRANSCOM and its interface with JOPES for monitoring and controlling the TPFDD to sequence arrivals when adjustments to the initial TPFDD must be made. A Ships Priority and Distribution Board (SPDB) established by the JMC will ensure the maximum use of limited port facilities based upon the JFC's priorities for cargo offload.

In an immature theater the movement control organization must be capable of conducting all of the above responsibilities. They must have the personnel, knowledge, and automation to link the strategic movements to the tactical movements. The size of the movement organization is irrelevant to the concept. It must be modular and capable of building from one MCT to a JMC depending upon the mission.

Functions and responsibilities of the JMC include:20

- Command and control movement control elements in theater.
- Prepare theater movement plans.
- Implement the tasking and priorities provided by the JFC.
- Coordinate the employment of all means of transportation including allied and host nation.
- Establish theater transportation policies.
- Interface with JOPES.
- Analyze user capabilities to ship, receive, handle cargo, and recommend solutions to shortfalls.
- Advise J4/JFC on transportation matters that adversely affect combat operations.
- Liaison with host nation on transportation issues.
- Apportion common user transport capability (air, sea, ground).
- Allocate apportioned assets to operational requirements.
- Deconflict critical priorities.
- Validation of movement requirements sent to USTRANSCOM.

- Coordinating special moves, unit moves, host nation support, coalition support.
- In-transit visibility of units, personnel, equipment, material.
- Committing transportation resources.
- Highway regulation.
- Monitoring transportation resources to include transport vehicles, aircraft, watercraft, and main supply routes.
- Providing reports to the J4 and JFC.

INFORMATION MANAGEMENT

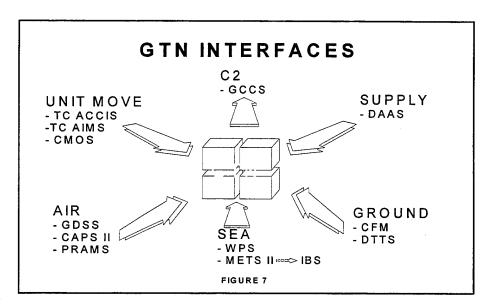
Providing correct, timely information to the JFC and other decision makers is a responsibility of the joint movement control system. The information must enable the decision maker to make the best decision possible in the time sensitive environment of deploying forces. The JMC is the fusion center for all deployment status information. It provides the link between the strategic systems of WWMCCS, Global Command and Control System (GCCS) and JOPES to control the TPFDD down to providing information on unit movements to the J3 force tracking cell.

Transportation Information Management Systems

There are many transportation and logistic systems currently in use and on the drawing boards of a variety of agencies. Together they can provide the JMC with the minimum essential information required to provide the JFC with the critical decision making data he requires.

GTN

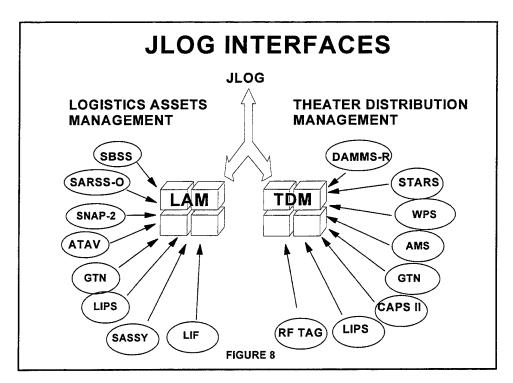
GTN is an integrated data base operated by USTRANSCOM. GTN will provide access to more than eighteen strategic and CONUS deployment integrated databases available. GTN will satisfy the requirements for strategic data required by the JMC. It can provide current operational information on passenger and patient movement, unit movement, unit cargo, and sustainment cargo moving via all modes of transportation. It will be able to link into the joint theater transportation system to provide continual visibility from factory to foxhole. Further refinement of available data will provide the JMC not only what is in the pipeline but also what is forecasted. This will enable the JMC to expedite the reception and onward movement of units and supplies arriving in theater. The JMC is a user of the GTN data bases. Only when the JFC requires adjustments to the TPFDD, will the JMC have a requirement to directly access GCCS through the GTN system. All other requirements are read only. The primary data bases accessed by GTN include:



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JLOG

The Joint Logistics Management Information System (JLOG) is a prototype theater distribution management and total asset visibility tool for the JFC and the Service components. The theater distribution management system will be the primary system for the JMC and its subordinate movement control elements to provide visibility of movements within the theater. JLOG will provide an excellent management level system that can monitor arrival of strategic lift at APODs and SPODs. It can monitor critical movements of units or material within the theater. JLOG will be an enabler for the JMC to coordinate movements, deconflict priorities, provide intransit visibility, and make the critical decisions that directly impact transportation and movement control in the theater.



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Hardware Requirements

There is a requirement for a multimedia capable, integrated work station that is user friendly, large screen display, multi-level secure, portable, and capable to interface with the multitude of transportation information databases available. It must be capable of connecting to satellites, both tactical military and commercial, commercial land line phone, Defense Systems Network (DSN), and the Mobile Subscriber Network (MSE). Communications with CONUS based systems operated under the split base concept with the main system being located in CONUS while providing a satellite down link to the deployed JMC in the theater of operation is essential. Tactical communications have also been a concern for several years for the movement community. With the mission placing movement control elements hundreds of kilometers from their headquarters, the requirements for extended long range communications exist.

Reports

Providing valuable and essential movement information to the Joint Force Commander will enable critical decisions to be made that affect the RSO&I process. The JCS has identified a specific USTRANSCOM Situation Report by area of operation that reports all movements of strategic lift assets. Reports that are internal to the JMC and the JTF organization provide similar information. Other reports maybe required depending on the situation and the personal requirements from the JFC and his staff.

CONCLUSION

The command and control role the JMC plays in RSO&I is very critical. If we cannot adequately control the reception, onward movement, staging and integration of joint forces into a developing theater of operations then we will loose momentum and delay providing combat power to the JFC. The improvements to the role, function, and organization of the JMC have been outlined in this paper.

- Joint Doctrine must be changed to provide authoritative guidance that stipulates that movement control is a joint function and not a Service responsibility.
- Joint Doctrine must be changed to provide authoritative guidance for manning a JMC.

 Services must provide movement control elements and personnel to form the JMC.
- Joint Doctrine must be changed to provide authoritative guidance that aligns the JMC
 as a joint unit under the command and control of the Joint Force Commander. The
 JMC will assume operational control of subordinate Service component movement
 control elements.
- The JMC must be provided with the tools to execute the mission. Transportation information management systems must be funded and developed. Communications must be provided to the joint movement control system in order for them to execute their mission in a timely manner.

The JMC and the joint movement control system must be a unity of effort organized under a single command authority. With a joint movement control system, we can insure that RSO&I functions can maximize the throughput of deploying forces.

END NOTES

- 1.Henry E. Eccles RADM, <u>Logistics in the National Defense</u>, Harrisburg: Stackpole, 1959, 169
- 2.U.S. Department of Defense, <u>Joint Tactics</u>, <u>Techniques and procedures for Movement Control</u>, Joint Publication 4-01.3, Washington: U.S. Department of Defense, 26 January 1994, I-3.
- 3.U.S. Department of the Army, Transportation School, Briefing, "Reception, Staging, Onward Movement and Integration," Ft Eustis: U.S. Army Transportation School, 19 December 1995.
- 4. Ibid.
- 5. Pagonis, William G., LTG, and MAJ Harold E. Raugh Jr., "Logistic Sustainment of Operation Desert Storm," Military Review, September 1991, 29-38; Pagonis, William G., LTG, and Jeffery L. Cruikshank, Moving Mountains, Lessons in Leadership and Logistics from the Gulf War, Boston: Harvard Business School Press, 1992, 90; Shea, Thomas M., LTC, "Joint Movement Control in Operation Uphold Democracy," Transportation Corps Professional Bulletin, Summer 1995, 10-13; Shea, Thomas m., MAJ, "Operation Provide Comfort 91 - Joint Movement Control," Transportation Corps Professional Bulletin, PB 55-92-2, April 1992, 34-37; U.S. Atlantic Command, Operation Uphold Democracy, Joint After Action Report, Norfolk: U.S. Atlantic Command, 29 June 1995, 40, 45, 61, 78; U.S. Department of the Army, Transportation School, Operations Desert Shield/Storm Transportation and Distribution Field Operations, Ft Eustis: U.S. Army Transportation School, 1992, 6-14; U.S. General Accounting Office, Operation Desert Storm Transportation and Distribution of Equipment and Supplies in Southwest Asia, Washington: U.S. General Accounting Office, GAO/NSIAD-92-20, December 1991, 4-7; U.S. General Accounting Office, Desert Shield/Storm Logistics Observations by U.S. Military Personnel, Washington: U.S. General Accounting Office, GAO/NSIAD-92-26, November 1991, 30.
- 6.U.S. Department of Defense, <u>Logistic Support of Joint Operations</u>, Joint Publication 4-0, Washington: U.S. Department of Defense, 27 January 1995, vi.

7.Ibid., B-2.

- 8.U.S. Department of Defense, <u>Joint Tactics, Techniques and Procedures for Movement Control</u>, Joint Publication 4-01.3, Washington: U.S. Department of Defense, 26 January 1994, III-2.
- 9.U.S. Department of Defense, <u>Logistic Support of Joint Operations</u>, Joint Publication 4-0, Washington: U.S. Department of Defense, 27 January 1995, III-6.

- 10.U.S. Department of Defense, <u>Logistic Support of Joint Operations</u>, Joint Publication 4-0, Washington: U.S. Department of Defense, 27 January 1995, II-6.
- 11.U.S. Department of Defense, <u>Joint Tactics, Techniques and Procedures for Movement Control</u>, Joint Publication 4-01.3, Washington: U.S. Department of Defense, 26 January 1994, III-1.
- 12.U.S Department of Defense, <u>Joint Doctrine for Bulk Petroleum</u>, Joint Publication 4-03, Washington: U.S. Department of Defense, 25 July 1995, II-2.
- 13.U.S. Department of the Army, Training and Doctrine Command (TRADOC), Warfighting Augmentation of Selected Commanders in Chief of Unified Commands and Army Service Component Commanders, TRADOC Regulation 500-1, Ft Monroe: TRADOC 1994, 13.
- 14. Croom, Donald G., LTC USMC, (croom@carlsisle-emh2.army.mil), "USMC Movements Information," electronic mail message to author, 9 February 1996; Jacobs, MAJ, USMC, G-3 FSSG, II MEF, telephone interview by author, 15 February 1996; Lubers, Edward, Capt, USAF, 621st Air Mobility Squadron, telephone interview by author, 6 February 1996; Lucido, Steve, Military Sealift Command, telephone interview by author, 15 February 1996; U.S. Department of the Navy, Military Sealift Command, "Sub-specialty Fact Sheet: Transportation Management," Washington: Military Sealift Command, January 1995.
- 15. U.S. Department of the Army, Combined Arms Support Command (CASCOM), "Draft Concept and Unit Reference Sheets (URS) for Movement Control," memorandum, Ft Lee: 2 August 1994.
- 16.U.S. Department of the Air Force, Air Mobility Command, <u>Command Data Book</u>, Scott AFB: U.S. Department of the Air Force, November 1995, 102.
- 17.Ibid., 123.
- 18.U.S. Department of Defense, <u>Tactics</u>, <u>Techniques</u>, and <u>Procedures for Water Terminal Operations</u>, Joint Publication 4-01.5, Washington: U.S. Department of Defense, 16 June 1993, A-C-1.
- 19.U.S. Department of the Army, <u>Movement Control in a Theater of Operations</u>, Field Manual 55-10, Washington: U.S. Department of the Army, 8 December 1992, 3-2.
- 20.U.S. Department of Defense, <u>Joint Tactics</u>, <u>Techniques and Procedures for Movement Control</u>, Joint Publication 4-01.3, Washington: U.S. Department of Defense, 26 January 1993, III-1-9.
- 21. U.S. Transportation Command (USTRANSCOM), TCJ6 Briefing: "Global Transportation Network Update," Scott AFB: USTRANSCOM, February 1996.

22. Automation Research Systems, Limited (ARS), Briefing: "JLOG Requirements Coordination Briefing," Ft Lee: ARS, October 1995.

REFERENCE MATERIALS

Automation Research Systems, Limited, Briefing: "JLOG Requirements Coordination Briefing," Ft Lee: ARS, October 1995.

Brown, Daniel G. MG, Interview by author, 18 December 1995.

Brown, Daniel G. LTC, "Joint Service Intratheater Transportation During Wartime," Executive Research Project, Industrial College of the Armed Forces, Ft McNair, D.C., 8 Dec 1987.

Croom, Donald LtCol, (croomd@carlisle-emh2.army.mil). "USMC Information," Electronic mail message to author, 9 February 1996.

Eccles, Henry E., RADM, USN, <u>Logistics in the National Defense</u>, <u>Harrisburg: Stackpole</u>, <u>1959</u>.

Jacobs, Maj, G-3 IIMEF FSSG. Telephone interview by author, 15 February 1996.

Langenus, Peter C. COL, "Moving an Army: Movement Control for Desert Storm," Military Review, September 1991, 40-51.

Lubers, Edward Capt, 621st Air Mobility Squadron, Telephone interview by author, 6 February 1996.

Lucido, Steve, Military Sealift Command, telephone interview by author, 15 February 1996.

Pagonis, William G. LTG and MAJ Harold E. Raugh Jr.. "Logistic Sustainment of Operation Desert Storm," <u>Military Review</u>, September 1991, 29-38.

Pagonis, William G.,LTG and Jeffery L Cruikshank. <u>Moving Mountains, Lessons in Leadership and Logistics from the Gulf War</u>, Boston: Harvard Business School Press, 1992.

Shea, Thomas M. LTC, "Joint Movement Control In Operation Uphold Democracy," <u>Transportation Corps Professional Bulletin</u>, Summer 1995, 10-13.

Shea, Thomas M. MAJ, "Operation Provide Comfort 91 - Joint Movement Control," Transportation Corps Professional Bulletin, PB 55-92-2, April 1992, 34-37.

Tucker, Donald COL, J-4 USACOM, Telephone interview by author, 20 February 1996.

U.S. Atlantic Command, <u>Operation Uphold Democracy</u>, Joint After Action Report, Norfolk: USACOM, 29 June 1995.

- U.S. Department of the Air Force, Air Mobility Command. Command Data Book, Scott AFB:
- U.S. Department of the Air Force, November 1995.
- U.S. Department of the Army. Army Enterprise Strategy Implementation Plan, Washington:
- U.S. Department of the Army, August 1994.
- U.S. Department of the Army. <u>Movement Control in a Theater of Operations</u> Field Manual 55-10, Washington: U.S. Department of the Army, 8 December 1992.
- U.S. Department of the Army, Training and Doctrine Command (TRADOC). <u>Warfighting Augmentation of Selected Commanders in Chief of Unified Commands and Army Service Component Commanders</u> TRADOC Regulation 500-1, Ft. Monroe: TRADOC, 1994.
- U.S. Department of the Army, Transportation School, <u>Operations Desert Shield/Storm Transportation and Distribution Field Observations</u>, Ft Eustis: USATSCH, 1992.
- U.S. Department of the Army, Transportation School, Briefing, "Reception, Staging, Onward Movement and Integration," Ft Eustis: USATSCH, 19 December 1995.
- U.S. Department of the Army, Combined Arms Support Command (CASCOM), Briefing: "DAMMS-R Update," Ft Lee: CASCOM, January 1996.
- U.S. Department of the Army, Combined Arms Support Command (CASCOM), Briefing: "Battlefield Distribution System," Ft Lee: CASCOM, February 1996.
- U.S. Department of the Army, Combined Arms Support Command (CASCOM), Briefing: "Army Communications Zone Support", Ft Lee: CASCOM, 18 September 1995.
- U.S. Department of the Army, Combine Arms Support Command (CASCOM, "Draft Concept and Unit Reference Sheets (URS) for Movement Control," memorandum, Ft Lee, 2 August 1994.
- U.S. Department of Defense. <u>Doctrine for Rear Area Operations</u>, Joint Publication 3-10, Washington: U.S. Department of Defense, 26 February 1993.
- U.S. Department of Defense. <u>Joint Tactics, Techniques, and Procedures for Theater Airlift Operations</u>, Joint Publication_3-17, Washington: U.S. Department of Defense, 18 July 1995.
- U.S. Department of Defense. <u>Command and Control for Joint Air Operations</u>, Joint Publication 3-56.1, Washington: U.S. Department of Defense, 14 November 1994.
- U.S. Department of Defense. <u>Logistic Support of Joint Operations</u>, Joint Publication 4-0, Washington: U.S. Department of Defense, 27 January 1995.

- U.S. Department of Defense. <u>Mobility Systems Policies</u>, <u>Procedures</u>, and <u>Considerations</u>, Joint Publication 4-01 Change 2, Washington: U.S. Department of Defense, 15 September 1983.
- U.S. Department of Defense. <u>Joint Doctrine for the Defense Transportation System (DRAFT)</u>, Joint Publication 4-01, Washington: U.S. Department of Defense, February 1996.
- U.S. Department of Defense. <u>Joint Tactics, Techniques and Procedures for Movement Control</u>, Joint Publication 4-01.3, Washington: U.S. Department of Defense, 26 January 1994.
- U.S. Department of Defense. <u>Tactics, Techniques, and Procedures for Water Terminal</u> <u>Operations, Joint Publication 4-01.5, Washington: U.S. Department of Defense, 16 June 1993.</u>
- U.S. Department of Defense. <u>Joint Logistics Over the Shore</u>, Joint Publication 4-01.6, Washington: U.S. Department of Defense, 22 August 1991.
- U.S. Department of Defense. <u>Joint Bulk Petroleum Doctrine</u>, Joint Publication 4-03, Washington: U.S. Department of Defense, 25 July 1995.
- U.S. Department of Defense. <u>Doctrine for Planning Joint Operations</u>, Joint Publication 5-0, Washington: U.S. Department of Defense, 13 August 1995.
- U.S. Department of Defense. <u>Defense Intransit Visibility Integration Plan</u>, Washington: U.S. Department of Defense, February 1995.
- U.S. Department of Defense. <u>C4I For the Warrior, Global Command and Control System</u>, Washington: U.S. Department of Defense, June 1994.
- U.S. General Accounting Office. <u>Operation Desert Storm Transportation and Distribution of Equipment and Supplies in Southwest Asia</u>, Washington: U.S. General Accounting Office, GAO/NSIAD-92-20, December 1991.
- U.S. General Accounting Office. <u>Desert Shield/Storm Logistics</u>, <u>Observations by U.S. Military Personnel</u>, Washington: U.S. General Accounting Office, GAO/NSIAD-92-26, November 1991
- U.S. Department of the Navy. Military Sealift Command, "Sub-specialty Fact Sheet: Transportation Management," Washington: MSC, January 1995.
- U.S. Transportation Command (USTRANSCOM) TCJ6 Briefing: "Global Transportation Network Update," Scott AFB: USTRANSCOM, February 1996.